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A DESCRIPTIVE EXAMINATION OF MARIJUANA AND COCAINE USE AMONG EMPLOYED PERSONS AND ITS ASSOCIATION WITH WORK DAYS SKIPPED AND HEALTH STATUS

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OBJECTIVES: To examine levels of cocaine and marijuana use among employed individuals and the relationship between illicit drug use and work days skipped and health status within different occupational types. **METHODS:** Self reported interview data from the 2008 National Survey on Drug Use and Health (n = 55,739) was analyzed. Employed individuals (n = 22,757) were categorized into three occupational types: "skilled labor" (n = 6,706), "retail industry" (n = 5,021) and "professionals" (n = 11,030). Comparative analysis were conducted for level of drug use, health status and days of work skipped within the three occupational types. **RESULTS:** Among marijuana users (4.7%), 3.2% were recreational users (<7 days marijuana used per month) and 1.5% were heavy users (>7days per month). "Professionals" had the lowest rate of heavy marijuana users (1.0%) compared to "retail industry" (1.9%) and "skilled labor" (2.1%) (χ^2 = 62.7, p < 0.001). More heavy marijuana users (1.2%) had skipped > 7 work days per month than recreation users (0.3%) and non-users (0.4%) (χ^2 = 120.5, p < 0.001). Irrespective of occupational type, more heavy marijuana users (10.4%) reported fair/poor health than recreational (6.9%) and non-users (7.1%) (χ^2 = 93.1, p < 0.001). "Professionals" had the lowest rate of cocaine use (0.6%), compared to "retail industry" (0.9%) and "skilled labor" (0.9%). Among cocaine users, "skilled labor" and "retail industry" employees skipped more work days compared to non-cocaine users (χ^2 = 8.3, p = 0.016). Irrespective of occupational type, a greater percentage (11.8%) of cocaine users reported fair/poor health than non-cocaine users (7.6%) (χ^2 = 32.9, p < 0.001). **CONCLUSIONS:** A distinct relationship exists between levels of illicit drug use, work days skipped, health status and occupational type. "Professionals" use less illicit drugs and may have lower levels of loss in productivity and better health status compared to individuals in "skilled labor" and "retail industry". Several interesting conclusions can be derived from these findings that can be used to implement and control for illicit drug use across industries.

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COMPUTERIZED INTERVENTIONS TO OBTAIN INDICATION INFORMATION FOR INPATIENT PRESCRIPTIONS: A PILOT STUDY IN DRUGS FREQUENTLY USED OFF-LABEL

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OBJECTIVES: Linking indication and prescribed medicine is central to comparative effectiveness research and evidence based medicine. Little research exists regarding mechanisms for acquiring indications for inpatient medication use. The main objective of this pilot study was to assess an intervention during computerized physician order entry (CPOE) for gathering indications for inpatient medication use. **METHODS:** Three medications were selected based on clinical interest and likelihood of off-label use: the proton pump inhibitor (PPI), lansoprazole, the intravenous immune globulin (IVIG), Flebogamma®, and recombinant Factor VIIa (rFVIIa). Alerts were triggered at the time of CPOE for each medication. To minimize physician burden, alerts were not triggered when appropriate indications/diagnoses were already listed in the electronic problem list. The alerts requested clinicians to enter either a labeled or off-label indication for the medication order. The lansoprazole, IVIG, and rFVIIa interventions ran for 60, 175, and 93 days, while 873, 56, 25 alerts were displayed to clinicians, respectively. A random sample of 100 alerts was chosen for the lansoprazole analysis. Expert chart review was used as the actual indication gold-standard. **RESULTS:** For lansoprazole, 81 % of the medication orders were off-label and 71% were off-label if all indications of the PPI drug class were considered. For Flebogamma®, 100% of the orders were off-label and 86% were off-label when considering all indications of the IVIG class. All orders for rFVIIa were off-label. The match between indications entered through the alert system and chart review was 61% for lansoprazole, 46% for IVIG, and 40% for rFVIIa. **CONCLUSIONS:** This pilot of indication based prescribing during CPOE illustrates many challenges: number of indications, coding (ICD9 codes are limited), and the tradeoff of information versus nuisance. The indication data generated was not highly accurate. The high rate of off-label use noted suggests the value of efficiently defining prescribing indications.

HEALTH CARE USE & POLICY STUDIES – Equity and Access

PHP32

ASSOCIATION OF PAYER STATUS WITH LENGTH OF STAY IN PATIENTS HOSPITALIZED FOR INJURY IN 2006 NHAMCS-ED DATA

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OBJECTIVES: This study aimed to examine the association of payer status with length of stay in patients hospitalized for injury. **METHODS:** A total of 1,020 hospitalization records related to injury in 2006 National Hospital Ambulatory Medical Care Survey-Emergence Department Visit Data (NHAMCS-ED) were analyzed with national weight. A general linear model (GLM) was used to explore the association between payer status and length of stay, controlled for predisposing factors: age, gender, race; illness factors: intent type, pain, length of ED visit, total number of procedures in ED; and enabling factors: ownership of the hospital, and whether or not the hospital received any Medicaid disproportional share program funds in 2005. Multiple comparisons of least squared means using the self-pay group as reference group were adjusted based on Bonferroni's method. Length of stay was logarithmically transformed to depress its variance. **RESULTS:** The weighted sample size is 3,119,552. For 33,202 patients whose primary expected sources of payment was worker compensations, the mean length of stay was 5.2 days (95% CI: 2.4–11.2); 4.9 days (95% CI: 4.6–5.3) for 1,046,655 Medicare patients; 4.8 days (95% CI: 2.6–5.7) for 18,445 whose expected source was no charge/charity; 4.3 days (95% CI: 3.9–4.7) for 619,854 with Medicaid/SCHIP; 3.9 days (95% CI: 3.6–4.2) for 806,346 with private insurance; 2.9 days (95% CI: 2.6–3.2) for 357,032 self-pay patients. The GLM fit well (F = 6.33, p < 0.0001, R^2 = 0.16) in this study. Effects of payer status, age, race and total number of procedures were statistically significant (all p-values < 0.005). As to multiple comparisons, patients with either of Medicaid/SCHIP and private insurance stayed in hospital significantly longer than self-pay patients (1.4 days, 95% CI: 1.1–1.7, p < 0.01; 1.3 days, 95% CI: 1.1–1.6, p < 0.01, respectively). **CONCLUSIONS:** Payer status was significantly associated with the length of stay for inpatients with injury, indicating a significant variation due to health care access.

PHP33

REGIONAL INEQUALITIES IN THE UTILIZATION AND HEALTH INSURANCE REIMBURSEMENT OF SPA SERVICES IN HUNGARY

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OBJECTIVES: The aim of our study is to analyze the regional inequalities in the utilization and health insurance reimbursement of spa services in Hungary. **METHODS:** Data were derived from National Health Insurance Fund Administration (OEP), the only health care financing agency in Hungary covering the year 2007. We analyzed the annual number of treatment episodes and its health insurance reimbursement (both per 10000 population) according to the 20 Hungarian counties. We included the following type of spa treatments: spa pool of medical water, tub-bath of medical water, mud pack, medicinal weight-bath, effervescent-bath, medical health massage, sub-aquean spray massage, sub-aquean health care gymnastics for groups, complex balneotherapeutical service, health swim therapy for groups under 18. Results—both number of treatment episodes and health insurance reimbursement—are calculated for 10,000 population in each county. **RESULTS:** A total of 8.16 million treatments of medical spa were done in Hungary in 2007 and OEP spent 4,434 billion HUF (Hungarian Forint) [US$25,687,967] for financing these interventions. The national average of treatment episodes was 8033 per 10000 population while the average OEP reimbursement was 4,365 million HUF per 10,000 population. The detailed analysis of counties resulted in high geographical differences. We found the highest number of utilization in county Csongrad (treatment episodes: 15,193; reimbursement: 7,647 million HUF), in county Hajdu-Bihar (treatment episodes: 11,687; reimbursement: 7,193 million HUF) and in Budapest (treatment episodes: 10,625; reimbursement: 5904 million HUF). The lowest utilization of spa services can be found in county Szabolcs-Szatmár-Bereg (treatment episodes: 4107, reimbursement: 1999 million HUF) and Nograd county (treatment episodes: 4782, reimbursement: 2497 million HUF) and Borsod-Abauj-Zemplen county (treatment episodes: 4891, reimbursement: 2596 million HUF). **CONCLUSIONS:** Our study revealed more than 3 times higher difference both in the utilization and health insurance reimbursement of spa services between counties in Hungary.

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RACIAL AND ETHNIC DISPARITIES IN THE PHARMACEUTICAL COST UNDER MEDICARE PART D

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OBJECTIVES: Medicare Part D may have introduced new sources for racial/ethnic disparities in drug costs. This study is going to compare the racial and ethnic disparities in the pharmaceutical costs before and after the implementation of Part D in January 2006. **METHODS:** Using Medical Expenditure Panel Survey from January 2004 to December 2007, we examine the racial (whites vs. African Americans) and ethnic (whites vs. Latinos) disparities among Medicare beneficiaries in the probability of taking any drug, the amount of drug cost, the probability of having any out-of-pocket payment (OOP), and the share of OOP to the total drug cost before and after January 2006. Multivariate regressions models are employed to examine the adjusted racial and ethnic disparities in these outcomes. **RESULTS:** Medicare beneficiaries' OOP sharing significantly dropped under Part D. Latinos and African Americans paid significant lower OOP on average compared to the whites, due to their high enrollments in the Medicaid. Among the Medicare and Medicaid dual eligibles, Latinos were 77% (p < 0.001) less likely to use any drug under Part D, while the difference was not significant before 2006. There were no significant ethnic disparities in drug cost among non-dual eligibles under Part D. African Americans were still less likely to use any drug and had lower drug costs compared to whites. **CONCLUSIONS:** Racial disparities in drug cost still exist and have similar magnitudes under Part D compared to before. Significant variations exist among the Latino dual and non-dual eligibles. Under Part D, ethnic disparities among non-dual eligibles disappeared, while Latino dual eligibles became significantly less likely to have any drug cost compared to whites. Part D has reduced ethnic disparities among non-dual eligibles, but may also have introduced new sources of disparities for dual eligibles.